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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,473	12/07/2004	Johannis Friso Rendert Blacquiere	NL 020482	6122
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EXAMINER				
PATEL, KAMINI B				
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2114				
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12/17/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/517,473

Applicant(s)

BLACQUIERE ET AL.

Examiner

KAMINI PATEL

Art Unit

2114

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 01/19/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-37 are pending.
2. Claims 1-11, 22-28, 31, 33-34 are rejected.
3. Claims 12-21, 29-30, 32, 35-37 are objected as being in improper multiple dependent and not treated on the merits.

Examiner's Remarks

The cited prior art Japanese patent Hasegawa is used for rejection of the some of the claims and translation of Hasegawa is used and provided by the examiner.

Information Disclosure Statement

4. The information disclosure statement filed 01/19/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

5. The drawings filed on 12/07/2004 are accepted by the examiner.

Claim Objections

6. Claims 12-21, 29-30, 32, 35-37 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 12, 28, 29. See MPEP § 608.01(n). Accordingly, the claim 12-21, 29-30, 32, 35-37 not been further treated on the merits.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. ***Claim 3*** recites the limitation "said portion of the first storage layer being smaller than the total first storage layer". The specification does not support this limitation. There is insufficient antecedent basis for this limitation in the claim.

9. **Claim 25** recites the limitation "perform a formatting operation in accordance with claim 23". Neither Claim 25 nor claim 23 recites formatting step. There is insufficient antecedent basis for this limitation in the claim.

10. **Claim 26** recites the limitation "capable of controlling a rotating means and a light beam generating means of an optical disc drive.....according to claim 24". Neither Claim 26 nor claim 24 recites rotating and generating step. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-2, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa (JP 2000-285469).

As per claim 1, Hasegawa discloses a method of writing an optical disc having a multi-layered storage space ([Fig. 1, 0020]) comprising

at least a first storage layer ([0020]) and a second storage layer below the first layer ([Fig. 1, 0020]), the method comprising the step of preventing a write operation to a portion of said second storage layer located below a maiden portion of said first storage layer [0022].

As per claim 2, Hasegawa discloses a method according to claim 1, wherein writing to the second storage layer is prevented until the first storage layer has been completely written [0022].

As per claim 22, Hasegawa discloses a method according to any one of the claims 1 to 3, wherein a write operation to a portion of the second storage layer is prevented by defining said portion as being occupied ([0016]).

13. Claim 6-11, 23-28, 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan (US 5,271,018).

As per claim 6, Chan discloses a method of formatting an optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, the method comprising the steps of (Col. 16, lines 34-48): defining logical

disc addresses for logical blocks of the storage space (Col. 1, lines 58-64); ***defining a reserved storage space in the storage space*** (Fig. 2, col. 1, lines 55-67); ***defining a defect list and storing the defect list in a predetermined portion of the reserved storage space*** (Col. 5, lines 58-67); ***and incorporating into the defect list addresses of all blocks which are physically located in the second storage layer*** (Col. 1, lines 37-43).

As per claim 7, Chan discloses a formatting method according to claim 6, also comprising the steps of: defining a defect type list and storing the defect type list in a predetermined portion of the storage space (Col. 5, lines 58-67); ***preferably a portion of the reserved storage space*** (Fig. 2, col. 1, lines 55-67); ***and writing into the defect type list, in respect of the blocks which are physically located in the second storage layer, a virtually defective code indicating that these blocks are only virtually defective*** (Col. 12, lines 50-68, col. 13, lines 1-22).

As per claim 8, Chan discloses a formatting method according to claim 6 or 7, also comprising the steps of: writing disc address information regarding the relation between physical disc addresses

and logical disc addresses into a predetermined portion of the reserved storage space (Fig. 2, col. 1, lines 55-67).

As per claim 9, Chan discloses a multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, the disc containing a defect list (Col. 5, lines 58-67) in a predetermined portion of a reserved storage space (Fig. 2, col. 1, lines 55-67), the physical disc addresses of all blocks which are physically located in the second storage layer and which are located below a maiden portion of said first storage layer all being incorporated in said defect list (Col. 5, lines 58-67).

As per claim 10, Chan discloses a multi-layered optical disc according to claim 9, also containing a defect type list (Col. 5, lines 58-67) in a predetermined portion of the storage space (Fig. 2, col. 1, lines 55-67), wherein, in respect of those blocks which are physically located in the second storage layer and which are located below a maiden portion of said first storage layer, the defect type list contains a virtually defective code indicating that these blocks are only virtually defective (Col. 12, lines 50-68, col. 13, lines 1-22).

As per claim 11, Chan discloses a multi-layered optical disc according to claim 9 or 10, also containing disc address information regarding the relation between physical disc addresses and logical disc addresses in a predetermined portion of the reserved storage space (Fig. 2, col. 1, lines 55-67).

As per claim 23, Chan discloses a method of formatting an optical disc having a multi-layered storage space (Col. 16, lines 34-48) comprising at least a first storage layer and a second storage layer below the first layer, the method comprising the steps of: defining logical disc addresses for logical blocks of the storage space (Col. 1, lines 58-64); defining a reserved storage space in the storage space (Fig. 2, col. 1, lines 55-67); defining a write history table and storing the write history table in a predetermined portion of the storage space, preferably in a predetermined portion of the reserved storage space, and writing into the write history table, in respect of all blocks of the storage space, a code having a first value indicating that these blocks are still maiden (Col. 1, lines 22-43).

As per claim 24, Chan discloses a multi-layered optical disc having a multi-layered storage space (Col. 16, lines 34-48) comprising at least a first storage layer and a second storage layer below the first layer, the disc containing a write history table in a predetermined portion of the storage space (Col. 1, lines 22-43), preferably in a predetermined portion of the reserved storage space, the write history table containing, in respect of the physical disc addresses of each block, at least of those blocks which are physically located in the first storage layer, a code having a first value in respect of blocks which are maiden and a second value in respect of blocks which have been written at least once (Col. 1, lines 22-43).

As per claim 25, Chan discloses a disc drive system, capable of controlling a rotating means (Col. 1, lines 13-21) and a light beam generating means of an optical disc drive, suitable for writing a multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, the disc drive system being adapted to perform a formatting operation in accordance with claim 23 (Col. 1, lines 65-68).

As per claim 26, Chan discloses a disc drive system, capable of controlling a rotating means (Col. 1, lines 13-21) and a light beam generating means of an optical disc drive, suitable for writing a multi-layered optical disc according to claim 24, the disc drive system being adapted to read the write history table from said disc and to store said write history table into a memory (Col. 1, lines 44-55).

As per claim 27, Chan discloses a disc drive system according to claim 26, also adapted to communicate the write history table to a file system (Col. 2, lines 5-11).

As per claim 28, Chan discloses a disc drive system according to claim 26 or 27, the system being adapted, at least after having written a maiden portion of said first storage layer, to write into the write history table, in respect of all blocks which have been written in the writing operation, a code having a second value indicating that these blocks have been written at least once (Col. 1, lines 22-43).

As per claim 31, Chan discloses a multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer

and a second storage layer below the first layer, the disc containing a file allocation list in a predetermined portion of a reserved storage space, the file allocation list containing at least one system file with a predetermined name, of which it is specified that it occupies all blocks which are physically located in the second storage layer and are located below a maiden portion of said first storage layer (Col. 7, lines 11-34).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa in view of Kato et al. (US 5,923,632).

As per claim 3, Hasegawa does not specifically disclose a method according to claim 1, comprising the step of allowing a write operation to a portion of the second storage layer if a sufficiently large portion of the first storage layer, overlying said second storage

layer portion, has been written at least once, said portion of the first storage layer being smaller than the total first storage layer;

However, Kato discloses the above claim limitations, (Col. 2, lines 10-16);

Therefore it would have been obvious to the one of ordinary skill in the art at the time of invention to incorporate teaching of Hasegawa's method to Kato's method because one of the ordinary skill in the art would have been motivated to accurately reproducing an information signal recorded on a plurality of information signal storage layers of a multi-layer optical disc (col. 3, lines 45-47).

As per claim 4, Hasegawa discloses a method according to claim 1, 2, or 3, wherein a write operation to a portion of the second storage layer is prevented by defining said portion as being defective ([0016], where by changing a state permeability second layer 13 is made non-writable (temporarily defective)).

As per claim 5, Hasegawa specifically does not discloses a method according to claim 4, wherein a distinction is made between truly defective storage blocks and storage blocks which are merely

temporarily defined as being defective ([0017], where the defect inspection is conducted and it distinguishes poor sector ID and over data error sector on an multi layer optical disk).

16. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa in view of Chan (US 5,271,018).

As per claim 33, Chan discloses a method according to any one of the claims 1 to 3, comprising the steps of defining a write allowability table comprising in respect of each block, that is, at least in respect of the blocks physically located in the second storage layer, a code indicating whether or not it is allowed to write in such block, of setting the code to a first predetermined value in respect of those blocks in the second storage layer which are located below a maiden portion of the first second storage layer, a write operation to a block being prevented if the corresponding code in the write allowability table has said first predetermined value (Col. 1, lines 22-55).

Therefore it would have been obvious to the one of ordinary skill in the art at the time of invention to incorporate teaching of Hasegawa's method to Chan's method because one of the ordinary skill in the art would have been motivated to avoid and compensate for defective sectors. (col. 1, lines 50-51).

As per claim 34, Chan discloses a method according to claim 33, wherein, after a maiden portion of said first storage layer has been written, in respect of those codes in the write allowability table which correspond to blocks located below said written maiden portion of said first storage layer the value is set to a second predetermined value indicating that writing is now allowed (Col. 1, lines 22-55).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMINI PATEL whose telephone number is (571)270-3902. The examiner can normally be reached on Monday to Thursday, 6am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on 571-272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2114

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott T Baderman/
Supervisory Patent Examiner, Art Unit 2114

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Examiner, Art Unit 2114